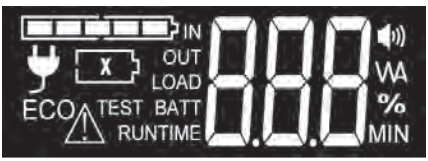
Owner's Manual

ECO-UPS™ Systems with LCD

Models: ECO650LCD, ECO850LCD

Not suitable for mobile applications



The ECO Energy-Saving Feature allows your UPS to save energy by automatically turning off designated outlets when your computer is off or in standby mode. When the UPS detects that your computer has been turned off or in standby mode for 3 minutes, it will turn off the outlets marked "ECO". The 3 minute delay ensures that the outlets remain powered during a reboot, momentary cable disconnection or similar transitory event.

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1111 W. 35th Street, Chicago, IL 60609 USA
www.tripplite.com/support

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Important Safety Instructions

SAVE THESE INSTRUCTIONS

This manual contains instructions and warnings that should be followed during the installation, operation and storage of this product. Failure to heed these warnings may affect the warranty.

UPS Location Warnings

- Install your UPS indoors, away from excess moisture or heat, conductive contaminants, dust or direct sunlight.
- For best performance, keep the indoor temperature between 32º F and 104º F (0º C and 40º C).
- Leave adequate space around all sides of the UPS for proper ventilation.

UPS Connection Warnings

- Connect your UPS directly to a properly grounded AC power outlet. Do not plug the UPS into itself; this will damage the UPS.
- Do not modify the UPS's plug, and do not use an adapter that would eliminate the UPS's ground connection.
- Do not use extension cords to connect the UPS to an AC outlet. Your warranty will be voided if anything other than Tripp Lite surge suppressors are used to connect your UPS to an outlet.
- If the UPS receives power from a motor-powered AC generator, the generator must provide clean, filtered, computer-grade output.

Equipment Connection Warnings

- Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended. Do not use this equipment in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.
- Do not connect surge suppressors or extension cords to the output of your UPS. This might damage the UPS and will void the surge suppressor and UPS warranties.

Battery Warnings

- Your UPS does not require routine maintenance. Do not open your UPS for any reason. There are no user-serviceable parts inside.
- Batteries can present a risk of electrical shock and burn from high short-circuit current. Observe proper precautions. Do not dispose of the batteries in a fire. Do not open the UPS or batteries. Do not short or bridge the battery terminals with any object. Unplug and turn off the UPS before performing battery replacement. Use tools with insulated handles. There are no user-serviceable parts inside the UPS. Battery replacement should be performed only by authorized service personnel using the same number and type of batteries (Sealed Lead-Acid). The batteries are recyclable. Refer to your local codes for disposal requirements or visit www.tripplite.com/UPSbatteryrecycling for recycling information. Tripp Lite offers a complete line of UPS System Replacement Battery Cartridges (R.B.C.). Visit Tripp Lite on the Web at www.tripplite.com/support/battery/index.cfm to locate the specific replacement battery for your UPS.
- Do not attempt to add external batteries to the UPS.

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Basic Operation

UPS ON/OFF

- **Plug the UPS into a grounded outlet.**
- **Turn the UPS on:** Press and hold the ⏻/MODE button for 2 seconds. The UPS alarm will beep once briefly after 2 seconds have passed.
- **Plug equipment into the UPS:** Select outlets will provide battery backup and surge protection; connect your computer, monitor and other critical devices here.* Select outlets will provide surge protection only; connect your printer and other nonessential devices here.
- **Turn the UPS off:** Press and hold the ⏻/MODE button for 2.5 seconds. The UPS alarm will beep once after 2.5 seconds have passed.

* *Your UPS is designed to support electronic equipment only. You will overload the UPS if the total VA ratings for all the equipment you connect to the "Battery, Surge and Noise Protected" outlets exceeds the UPS's Output Capacity. To estimate your equipment's power requirements, look on the nameplates. If the equipment is listed in amps, multiply the number of amps by 120 to determine VA, (Example: 1 amp x 120 = 120 VA). Your UPS is fully loaded when the display indicates 100% load.*

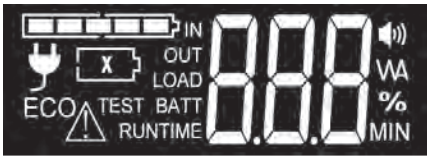
LCD Features

Tap the ⏻/MODE button to advance from one display to the next. Use the MUTE/↵ button to toggle settings for ECO, Alarm, LCD Brightness and Self-test functions. When the preferred setting has been selected, continue by pressing the ⏻/MODE button. If the screen is idle for 20 seconds, the LCD will return to the home screen, retaining the last selected settings.

Display Power Conditions

Use the ⏻/MODE button to advance through power conditions.

- Voltage In
- Voltage Out
- Estimated Runtime (in minutes)
- Load %*
- Load Wattage*
- Battery Capacity %



* *Display measurement represents battery backup protected outlets only.*

ECO Energy-Saving Feature

Use the included USB cable to connect your UPS to your computer. Connect nonessential equipment to the ECO outlets, marked "ECO" on your UPS system. Make sure that any devices connected to the ECO outlets can be turned off without interrupting your Internet connection, local network, or other essential services. While your UPS is turned on and operating normally from utility power, tap the ⏻/MODE button repeatedly to advance the LCD display to the screen marked "ECO". Use the MUTE/↵ button to enable the ECO function.

Enable/Disable Alarm

Tap the ⏻/MODE button repeatedly to advance to the LCD display featuring the 🔊 icon. Press the MUTE/↵ button to select enable or disable alarm mode settings.

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Basic Operation continued

LCD Brightness

Tap the ⏻/MODE button repeatedly to advance to the LCD Brightness display marked “LCD”. Press the MUTE/↵ button to select Medium Backlight (default), High Backlight or Dim Backlight.

Note: After 2 minutes of inactivity, the backlight will revert to the Dim setting until a button is pressed.

Self-test

Tap the ⏻/MODE button repeatedly to advance to the TEST BATT display. Press the MUTE/↵ button to initiate the test. The test will last approximately 10 seconds as the UPS switches to battery to test the capacity with a load. Upon completion of the test, the display will indicate PAS or BAD (pass or bad) for 20 seconds, then return to the home screen. Connected equipment can remain on during the test. Do not unplug your UPS, this will remove safe electrical grounding.

Error Messages

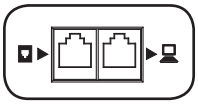
In the event that the UPS battery requires replacement, the [X] icon will flash, as well as the ⚠ icon. If there is an overload, the LOAD, ⚠, and % icons will flash simultaneously along with a numeric read out of the load percentage.

Features

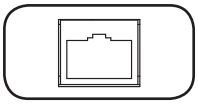
UPS Features

ON/OFF/MODE Button: Press and hold for 2 seconds to turn on the UPS and 2.5 seconds to turn the UPS off. When the UPS is on, tap this button repeatedly to advance through LCD display screens.

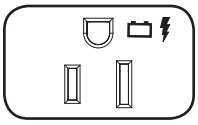
MUTE/SELECT Button: Use this button to toggle selection options for: self-test, enable/disable alarm, LCD brightness and ECO feature. This button can also be used to temporarily mute an active alarm by briefly pressing it.



Tel/DSL Line Protection Jacks: These jacks protect equipment against surges over a single phone line. Connecting your equipment to these jacks is optional. Your UPS will work properly without this connection.



USB Communications: This port connects your UPS system to any computer, enabling PowerAlert Software to automatically save open files and perform unattended shutdown in the event of a power failure and is also required to utilize the ECO feature. Use with included cable featuring a USB connector to connect to your computer’s port and the RJ45 connector to connect to the UPS system port. Connecting your equipment to this port is optional. Your UPS will work properly without this connection.



Battery Backup Protected/Surge Protected Outlets: Provide both battery backup and surge protection. Plug your computer, monitor and other critical equipment into these outlets. *Note: Do not plug laser printers into these outlets.*

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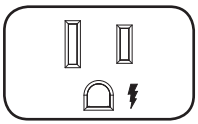
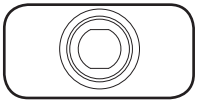
Features continued



Surge-Only Protected Outlets: Provide surge and line noise protection, not battery backup or the ECO feature. Plug equipment that does not require battery backup during a utility power failure into these outlets, such as a printer, scanner or fax machine.

Surge-Only Protected ECO Outlets: These outlets provide surge and noise protection, not battery backup. Your UPS system can save energy by automatically turning off these outlets when it detects that your computer is turned off or in standby mode. Make sure that any device connected to the ECO outlets can be turned off without interrupting your Internet connection, local network or other essential services.



Resettable Input Circuit Breaker: Protects your electrical circuit from overcurrent draw from the UPS load. If this breaker trips, remove some of the load, then reset it by pressing it in.

Storage and Service

Storage

To avoid battery drain, all connected equipment should be turned off and disconnected from the UPS. Press and hold the ⏻/MODE button for 2.5 seconds. Your UPS will be completely turned off (deactivated), and will be ready for storage. If you plan on storing your UPS for an extended period, fully recharge the UPS batteries every three months. Plug the UPS into a live AC outlet, turn it on by pressing and holding the ⏻/MODE button for 2 seconds, and allow the batteries to recharge for 4 to 6 hours. If you leave your UPS batteries discharged for a long period of time, they will suffer a permanent loss of capacity.

Service

A variety of Extended Warranty and On-Site Service Programs are available from Tripp Lite. For more information on service, visit www.tripplite.com/support. Before returning your product for service, follow these steps:

1. Review the installation and operation procedures in this manual to insure that the service problem does not originate from a misreading of the instructions.
2. If the problem continues, do not contact or return the product to the dealer. Instead, visit www.tripplite.com/support.
3. If the problem requires service, visit www.tripplite.com/support and click the Product Returns link. From here you can request a Returned Material Authorization (RMA) number, which is required for service. This simple on-line form will ask for your unit's model and serial numbers, along with other general purchaser information. The RMA number, along with shipping instructions will be emailed to you. Any damages (direct, indirect, special or consequential) to the product incurred during shipment to Tripp Lite or an authorized Tripp Lite service center is not covered under warranty. Products shipped to Tripp Lite or an authorized Tripp Lite service center must have transportation charges prepaid. Mark the RMA number on the outside of the package. If the product is within its warranty period, enclose a copy of your sales receipt. Return the product for service using an insured carrier to the address given to you when you request the RMA.

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Warranty Registration

Visit www.tripplite.com/warranty today to register the warranty for your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product! *

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

FCC Part 68 Notice (United States Only)
If your Modem/Fax Protection causes harm to the telephone network, the telephone company may temporarily discontinue your service. If possible, they will notify you in advance. If advance notice isn't practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper operation of your equipment. If it does, you will be given advance notice to give you an opportunity to maintain uninterrupted service. If you experience trouble with this equipment's Modem/Fax Protection, please visit www.tripplite.com/support for repair/warranty information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or you are sure the equipment is not malfunctioning. There are no repairs that can be made by the customer to the Modem/Fax Protection. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. (Contact your state public utility commission or corporation commission for information.)

FCC Radio/TV Interference Notice (U.S. only)
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference using one or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and the receiver; connect the equipment into an outlet on a circuit different from that which the receiver is connected; consult the dealer or an experienced radio/television technician for help. The user must use shielded cables and connectors with this product. Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC rules. Operation is subject to the following 2 conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Equipment Attachment Limitations
(models with the Industry Canada label in Canada only)
NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets the telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements Document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that the compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Note on Labeling
Two symbols are used on the label.
V~ : AC Voltage
V ⎓ : DC Voltage

Regulatory Compliance Identification Numbers
For the purpose of regulatory compliance certifications and identification, your Tripp Lite product has been assigned a unique series number. The series number can be found on the product nameplate label, along with all required approval markings and information. When requesting compliance information for this product, always refer to the series number. The series number should not be confused with the marking name or model number of the product.

Tripp Lite follows a policy of continuous improvement. Product specifications are subject to change without notice.

1111 W. 35th Street, Chicago, IL 60609 USA
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